

What is claimed is:

1           1.    A feed formulation for gestating and lactating  
2 swine comprising carnitine in an amount effective to increase  
3 at least one of the following: number of pigs per litter,  
4 litter weaning weight, and pig weaning weight.

1           2.    The formulation of claim 1 wherein the carnitine  
2 is L-carnitine or a salt thereof.

1           3.    The formulation of claim 1 wherein the amount of  
2 carnitine is from about 5 to about 5,000 ppm of the feed.

1           4.    The formulation of claim 1 wherein the amount of  
2 carnitine is from about 5 to about 200 ppm of the feed.

1           5.    The formulation of claim 1 further comprising  
2 from about 12% to about 30% by weight of crude protein.

1           6.    A method for feeding gestating and lactating  
2 swine comprising feeding a diet comprising carnitine in an  
3 amount effective to increase at least one of the following:  
4 number of pigs per litter, litter weaning weight, and pig  
5 weaning weight.

1           7.    The method of claim 6 wherein the carnitine is  
2 L-carnitine or a salt thereof.

1           8.    The method of claim 6 wherein the amount of  
2 carnitine is from about 5 to about 5,000 ppm of the feed.

1           9.    The method of claim 6 wherein the amount of  
2 carnitine is from about 5 to about 200 ppm of the feed.

1           10. The method of claim 6 wherein the diet further  
2 comprises from about 12% to about 30% by weight of crude  
3 protein.

1           11. A method for increasing pork productivity  
2 comprising the steps of:  
3           (a) supplementing a swine diet with an effective  
4 amount of carnitine, and  
5           (b) feeding the supplemented diet to swine during  
6 the period of gestation, lactation or both.

1           12. The method of claim 11 wherein the pork  
2 productivity is increased by increasing at least one of the  
3 following: number of pigs per litter, litter weaning weight,  
4 and pig weaning weight.

1           13. The method of claim 11 wherein the carnitine is  
2 L-carnitine or a salt thereof.

1           14. The method of claim 11 wherein the effective  
2 amount of carnitine is from about 5 to about 5,000 ppm of the  
3 feed.

1           15. The method of claim 11 wherein the effective  
2 amount of carnitine is from about 50 to about 200 ppm of the  
3 feed.

1           16. The method of claim 11 wherein the gestating and  
2 lactating swine diet comprises from about 12% to about 30% by  
3 weight of crude protein.